

AMENDMENTS TO THE CLAIMS:

Please amend claims 1, 3 and 4 and cancel claim 2 as set forth below. The claim listing below replaces all prior versions of the claims in the application.

1. (Currently Amended) A liquid discriminating apparatus comprising:

a concentration detecting device that ~~detects~~ calculates a concentration of a liquid reducing agent based on heat transfer characteristics between two positions spaced apart from each other[[.]] in a storage tank that stores a liquid supplied to a nitrogen oxide reduction catalytic converter disposed in an engine exhaust system; and

a control unit ~~which~~ that counts up a frequency at which the concentration calculated by said concentration detecting device becomes equal to or less than 0% and discriminates a type of the liquid in said storage tank,

wherein said control unit discriminates that the liquid in said storage tank is water,~~or that the liquid in said storage tank is a liquid reducing agent, or that said storage tank is empty,~~ when the counted frequency is greater than or equal to a predetermined frequency greater than 1 ~~concentration detected by said concentration detecting device is equal to or less than 0%, or~~ discriminates that the liquid in said storage tank is the liquid reducing agent when the ~~concentration calculated by said concentration detecting device is more than 0% and also equal to or less than the a predetermined concentration, or~~ and discriminates that said storage tank is empty when the concentration calculated by said concentration detecting device is more than the predetermined concentration,~~respectively.~~

2. (Canceled)

3. (Currently Amended) The apparatus according to claim 1 ~~or claim 2, wherein further comprising~~ a display device that visibly displays visibly the discrimination result ~~by~~ of said control unit ~~is disposed~~.

4. (Currently Amended) A liquid discriminating method, comprising:
calculating a concentration of a liquid reducing agent based on heat transfer
characteristics between two positions spaced apart from each other ~~wherein~~ in a storage tank that stores ~~the~~ a liquid supplied to a nitrogen oxide reduction catalytic converter disposed in an engine exhaust system, ~~the concentration of a liquid reducing agent is detected based on heat transfer characteristics between two positions spaced apart from each other;~~

counting up a frequency at which the calculated concentration becomes equal to or less than 0%;

~~and it is discriminated~~ discriminating that the liquid in said storage tank is water when the counted frequency is greater than or equal to a predetermined frequency greater than 1;

discriminating, or that the liquid in said storage tank is the liquid reducing agent when the calculated, ~~that said storage tank is empty, when the detected concentration is equal to or less than 0%;~~ more than 0% and also equal to or less than the a predetermined concentration; and

discriminating that said storage tank is empty when the calculated concentration is, or
more than the predetermined concentration, respectively.